



BROAD AGENCY ANNOUNCEMENT (BAA)

INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d)(2). A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued.

The Office of Naval Research (ONR) and the National Aeronautics and Space Administration (NASA) will not issue paper copies of this announcement. The ONR and NASA reserve the right to select for award all some or none of the proposals in response to this announcement. The ONR and NASA reserve the right to fund all, some or none of the proposals received under this BAA. ONR and NASA provide no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR and NASA to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

Awards may take the form of contracts, grants, cooperative agreements (CAs), or other transactions (OTs) agreements. Therefore, proposals submitted as a result of this announcement may fall under the purview of either the Federal Acquisition Regulation (FAR) or the Department of Defense Grant and Agreement Regulations (DODGARS).

I. GENERAL INFORMATION

1. Agency Names -

National Aeronautics and Space Administration
Headquarters
NASA HQ/3W76
300 E. Street SW
Washington DC 20546

Office of Naval Research,
Contract and Grant Awards Division
Ballston Centre, Tower One
800 N. Quincy Street
Arlington, VA 22217-5660

2. Research Opportunity Title -

"Science and Technology in Water Desalination and Purification"

3. Program Name -

"Next Generation Expedition Unit Water Purification (EUWP) System"

4. Research Opportunity Number -

ONR BAA 05-005

5. Response Date -

White Papers Due: 01 February 2005

Full Proposals Due: 31 March 2005

6. Research Opportunity Description -

The Office of Naval Research is soliciting white papers and proposals in the topic areas described below within the Expeditionary Unit Water Purification (EUWP) System Enhancement Program and the Human System Research and Technology (HSRT) Development Program of the National Aeronautics and Space Administration (NASA).

The ONR's EUWP Program is seeking innovative solutions to identify and evaluate approaches that may significantly reduce the costs, energetics, and footprint for desalination processes. Some of the approaches to desalination would also be applicable in water purification for high carbon and nitrogen laden wastes. These will have ramifications to both NASA and the ONR in developing technology solutions for their respective missions.

The HSRT Program is chartered to provide capabilities and technologies for regenerative closed-loop life-support systems that will be essential to enable human planetary exploration. Efforts are currently focused on missions ranging from a return to the Moon and through an initial Mars mission, including using the International Space Station as a test bed for research and technology validation. These future life-support systems must be able to provide additional *mass balance closure* (to *maximize and maintain a high level of pure water recovery*) to further reduce logistics requirements, and to promote self-sufficiency. Some of the

requirements include safe operability in micro- and partial-gravity, ambient and reduced-pressure environments, high reliability, minimal use of expendables, ease of maintenance, and low-system volume, mass, and power. Recovery of useful resources from liquid and solid wastes will be essential. Innovative, efficient, practical concepts are needed in all areas of resource recovery processes, providing the basic life-support functions of water reclamation.

Topic areas that are considered relevant to this announcement are described below with desired Technology Readiness Levels (TRL) defined as:

- TRL 1: Basic principles observed and reported
- TRL 2: Technology concept and/or application formulated
- TRL 3: Analytical and experimental critical function and/or characteristic proof-of-concept
- TRL 4: Component and/or breadboard validation in laboratory environment
- TRL 5: Component and/or breadboard validation in relevant environment

Topic I Alternative or Hybrid Technologies Toward Reduced Cost of Desalination (TRL 1-2)

The costs of desalting water are typically reduced by a few percent a year due to evolutionary process improvements and novel means to finance large installations or reduce capital expenditure. Still, the cost of desalted water is many times that of treated fresh water. The goal of this topic area is to explore new and innovative high risk / high reward approaches to desalination or alternative fresh water production techniques that provide revolutionary or large scale improvements over conventional desalination techniques – such as a greater than 50% reduction in power and cost, the elimination of chemical usage, the efficient *harvesting* of water where water sources are scarce, etc. Proposals under this topic should **not** include variations of conventional desalination techniques including normal applications of reverse osmosis (RO), electrodialysis, or any of the common thermal techniques.

Typical award sizes for **Topic I** will be \$150K to \$205K/year for 2 years with the second year as an option.

Topic II Beyond Next Generation Improvements to Current Desalination Technologies (TRL 1-3)

In many ways, the water treatment field is mature though not stagnant. Engineers are aware of the many desalting technologies and under which conditions each is the economically viable choice. Evolutionary improvements are continually incorporated into new plants. The goal of this research area is to look beyond the next generation of improvements toward changes in operations that have the potential to decrease delivered water costs by 20 percent or more due to decreased capital expenditure and/or operating costs. Examples for this topic may include but are not limited to new Ultrafiltration (UF) and RO membranes with higher fluxes and reduced fouling, improved chemical additives, improved pretreatment strategies, novel changes in operational configurations, and low cost solutions to brine disposal.

Typical award sizes for **Topic II** will be \$150K to \$250K/year for 2 years with the second year as an option.

Topic III Detection, Removal and Disinfection of Trace Contaminants (TRL 2-5)

Detection and sensor related research associated with detection of contaminants in water and removal or disinfection will be funded. Timely detection of contaminants in water can reduce costs, optimize water production, and increase consumer confidence and reception of product water. The ability to rapidly detect either a natural, unintentional or intentional contamination event on-site is needed to prompt in-time action to minimize or prevent equipment fouling and/or human exposure. Sensing can drive down production costs and increase product water production by providing information about water quality.

Systems that have integrated some or all components discussed below are of high interest.

Proposals are sought for technologies and/or methods for capturing, concentrating and recovering trace quantities of pathogens and/or chemicals from water supplies. Detection technologies that can provide an “event trigger” or “detection” and “identification” are desirable. Identification can be by “class”, i.e., by the effect it causes, or by specific material, such as the species level or compounds. Detection will need to be demonstrated in complex water backgrounds such as source water and product waters including tap and Reverse Osmosis Water Purification Unit (ROWPU) waters. Demonstration for ability to handle “mixtures” is important. Areas of risk for proposed technologies should be listed in the proposal.

Overall system and sensor performance metrics are based on Receiver Operating Characteristic (ROC) curves or equivalent analysis. A target goal is 95-99% probability of detection, 5% probability of false alarm at concentrations compatible with Tri-service standards, TB Med 577 or Joint Service Agent Water Monitor limits in product waters such as tap water and ROWPU water. Care needs to be taken in the development of a randomized or semi-randomized experimental design for data generation.

Proposals in the following areas will be of high interest: new and novel technologies and methods; technologies that are near term to product; technologies or methods that provide faster, more efficient analyte/pathogen recovery, reduced disposables, reduced costs or smaller physical footprint. The technology maturity desired is commercial-off-the-shelf (COTS), but near term and research solutions are also of interest, especially if they provide “next generation” capabilities. In order to propose “next generation”, the authors should be able to describe and compare “now generation” to their proposed “next generation”.

Typical award sizes for **Topic III** will be \$150K to \$250K/year for 2 years with the second year as an option.

Topic IV Development of Completely Closed-Loop Water Treatment Systems (TRL 3-5)

This BAA seeks to develop technologies that focus on reducing the cost, mass, power and associated consumables over currently available commercial waste processing systems. Proposals should aim to:

- Reduce bulk total organic carbon (TOC) and total dissolved solids (TDS) concentrations in wastewater from 1000 mg/l to less than 50 mg/l and/or the total dissolved solids from 1000 mg/l to less than 100 mg/l, respectively.
- Lower levels of total organic carbon (TOC) from 100 mg/l to less than 0.25 mg/l in the presence of 50 mg/l bicarbonate ions, 25 mg/l ammonium ions and 25 ppm of other inorganic ions.
- Develop techniques to minimize or eliminate biofilm or microbial contamination from potable water systems and water treatment systems, including fluid handling components such as pipes, tanks, flow meters, check valves, regulators.

Typical awards of contracts for **Topic IV** will be \$300K-\$500K/year for 3 years with the expected delivery of a prototype closed-loop life support system.

Topic V. Specific Needs in Support of Large Scale Portable Desalination (TRL 3-5)

The EUWP program is focused on discovering and incentivising dynamic technologies as alternatives for future upgrading of current systems used to desalinate and purify water in large-scale transportable reverse osmosis systems. These efforts will mostly be demonstrations of new and potentially available technologies that may significantly enhance current capabilities. Specific needs are stated below.

Topic V-1 Energy Recovery Systems

Within desalination and water purification systems, waste energy occurs in various forms and places such as heat generated by high-pressure pumps and motors, the reduction of process-water pressure, and water flow through various components. It is highly desirable that such waste energy be minimized and recovered at reasonable costs to improve overall system efficiency .

Topic V-2 Testing Methods and Facilities in Trace Contaminants

Test methods, test beds and simulations are needed to predict, test, and evaluate technologies in the detection, removal and disinfection of trace contaminants. Areas of interest include:

- Test, evaluation and validation methods including the qualification of background source waters. Leverage of the U.S. Geological Survey (USGS) National Water Quality Assessment (NAWQA) would be beneficial.
- Statistical analysis and experimental design methods.
- Cost-effective surrogate/simulant development.
- Models to handle source waters.
- The ability to recirculate contaminated water to simulate a threat event and ascertain the behavior of water and live agents.
- The need of an agent facility to conduct testing to understand and predict the behavior of agents in complex waters.

Topic V-3 Improvement of Critical Components

Improvement of critical components for RO desalination and purification systems is needed. Areas of interest include:

- Improved Ultrafiltration (UF) membrane elements with the following characteristics: non-fouling and chlorine resistant membrane; large enough flow

channels that resist plugging during operation and cleaning (i.e., back flushing and forward flushing); high membrane packing density (membrane area/cubic foot); the ability to operate elements in series (to minimize valving); the ability to operate elements horizontally (to maximize maintenance in compact areas and facilitate efficient packaging).

- Improved RO membranes with the following characteristics: high membrane capacity; chlorine resistance; greater salt rejection with improved rejection of cyanide and arsenic; improved removal efficiency of trace contaminants
- Improved compact and light weight high-pressure pumps with reduced noise while maintaining the high efficiency associated with positive displacement pumps.
- Strong light-weight low-cost pressure vessels.
- Improved self-cleaning prefilters or strainers.
- Other needs include: ability to remove dissolved gasses; ability to recover water from shipboard grey water to enable water reuse; reduction of Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD) from grey water; efficient removal of uric acid and urea.

Typical award sizes for **Topic V** will be \$150K to \$250K/year for 2 years with the second year as an option.

7. Point(s) of Contact -

Questions of a technical nature shall be directed to the cognizant Technical Points of Contact, as specified below:

Science and Technology Point of Contact:

For Topics I, II, III, V

Dr. J. Paul Armistead
Program Officer
Physical Sciences Code ONR 331
Office of Naval Research
Ballston Center Tower One, Room 503-8
800 N. Quincy St.
Arlington, VA 22217-5660
Tel: (703) 696-4315
Fax: (703) 696-6887
E-mail: armistj@onr.navy.mil

For Topic IV

Mr. Carl Walz,
Associate Director,
Life Support and Habitation
Exploration Systems Mission Directorate

Mail Suite: BF17
NASA Headquarters
300 E Street, SW
Washington DC 20546-0001
Tel: (202) 358-0357
Fax: (703) 358-3096
E-mail: cwalz@mail.hq.nasa.gov

Questions of a business nature shall be directed to the cognizant Contract Specialist, as specified below:

Business Point of Contact:

Mr. Austin C. Rentschler
Contract Specialist
Contract & Grant Awards, Code ONR 0254
Office of Naval Research
Ballston Center Tower One, Room 720
800 N. Quincy St.
Arlington, VA 22217-5660
Tel: (703) 696-4509
Fax: (703) 696-3365
Email: rentsca@onr.navy.mil

8. Instrument Type(s) -

It is anticipated that awards may take the form of contracts, grants, cooperative agreements, and other transaction agreements, as appropriate.

9. Catalog of Federal Domestic Assistance (CFDA) Numbers -

12.300

10. Catalog of Federal Domestic Assistance (CFDA) Titles -

DOD Basic and Applied Scientific Research

11. Other Information – N/A

II. AWARD INFORMATION

The EUWP program is a congressionally funded effort to seek out and identify dynamic, and innovative science and technology to radically advance the state of the art supporting next generation portable water desalination, in support of such applications as Department of Defense systems, space exploration and humanitarian missions. The program includes

funding from NASA. Proposals should be written for a duration described above for each topic area with specific S&T deliverables defined at the end of that period. Short descriptions and budgets for optional out years may be included.

- * Total amount of funding available: ~ \$5.5M
- * Anticipated number of awards: 25-30
- * Anticipated average award: see descriptions above.
- * Performance period of awards: see descriptions above.

III. ELIGIBILITY INFORMATION

The solicitation is open to all responsible sources other than Government entities and Federally Funded Research and Development Centers (FFRDCs).

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process -

White papers and proposals should be submitted to a designated topic area, I-V, described above. White papers must be submitted electronically. Full proposals must be submitted in hard copy.

White Papers are Encouraged Prior to Submitting a Full Proposal –

The due date for White Papers is no later than 2 p.m. (EST) on 02/01/2005. Initial government evaluations of the White Papers will be issued via E-mail notification on or about 02/25/2005. Detailed technical and cost proposals will be subsequently encouraged from those Offerors whose proposed technologies have been identified through the above-referenced E-mail as being of “particular value” to the Navy and NASA. However, any such encouragement does not assure a subsequent award. Any Offeror may submit a Full Proposal even if its White Paper was not identified as being of “particular value”.

Full Proposals - The due date for receipt of Full Proposals is 2 p.m. (EST) on 03/31/2005. It is anticipated that final selections will be made on or about 04/29/2005. Proposals received after the published due date may be considered for funding at a later time, if funding is available. As soon as the final proposal evaluation process is completed, the Offeror will be notified via email of its selection or non-selection for an award. Proposals exceeding the page limit may not be evaluated.

2. Content and Format of White Papers/Full Proposals -

The Proposals submitted under this BAA are expected to be unclassified. The Proposal submissions will be protected from unauthorized disclosure in accordance with FAR 15.207, applicable law, and DoD/DoN/NASA regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information.

White Paper Format/Content

White papers should not exceed eight (8) pages including:

1. A cover page, clearly labeled "White Paper" with the title of the proposed effort, the name of the principal investigator, performer address, telephone number, and email address. The cover page should cite this BAA (title and date) and indicate clearly the topic area (I-V) of this BAA.
2. A three (3) page technical section which clearly describes the objectives of the proposed effort, technical issues to be resolved to accomplish objectives, the technical approach proposed to resolve these issues, and assessment of new capability over state of the art to be provided. This section should include references.
3. Additional pages to include:
 1. A one (1) page programmatic section that includes milestones and a timetable.
 2. A one (1) page summary of the cost breakout for the effort being proposed and a summary description of the facilities available.
 3. A one (1) page (each) summary resume (including previous relevant experience and pertinent publications) for the Key Person (KP) and Principal Technical Investigator (PI).

Full Proposal Format/Content – Full proposals shall contain two separate volumes. Volume I is the technical proposal and it is limited to 20 pages, not including the cover page or the supporting information section. The cost proposal is Volume II and does not have a page limit.

Volume I Technical Proposal

1. Basic Information (to appear on a cover page)
 - a. Name and address of institution/Company (indicate type, e.g., profit, nonprofit, educational, small business, minority-owned, women-owned, Historically Black College or University, minority institution, Federal Demonstration Project participant).
 - b. Title of proposal.
 - c. Statement that "This proposal is submitted pursuant to (cite appropriate Broad Agency Announcement or other program announcement to which you are responding, of a particular date)". A listing of current ONR Broad Agency Announcements and Selected DoD Broad Agency Announcements can be found under the Business Opportunities section on the ONR web site.
 - d. Funding requested from ONR/NASA.
 - e. Duration of effort.
 - f. Names, telephone numbers, and E-mail addresses of the technical and business personnel who may be contacted for evaluation or negotiation purposes.
 - g. Dates of submission and signature(s) of official(s) authorized to obligate the institution/company contractually.
 - h. Identification of any proprietary information to be used by ONR/NASA for evaluation purposes only (the data which the offeror wishes to restrict shall be marked with a legend in accordance with Federal Acquisition Regulation 52.215-1(e)).

2. Technical Information (not to exceed 20 pages)

- a. Concise (approximately 200 words) abstract of the proposed effort.
- b. Discussion of how the proposed research effort will respond to the objectives of ONR/NASA.
- c. Statement of Work: Outline of the scientific tasks to be performed and who will perform them, with approximate time, cost, and other information appropriate to each task. The SOW must not contain proprietary information and must be severable from the proposal so that it can be attached to the resultant award.
- d. Description (in sufficient detail to evaluate the proposal) of the scientific background, objective, and technical approach for each proposed task; appropriate references to the scientific literature should be cited.
- e. Names of and brief biographical information on the key personnel.
- f. Rationale for requested support of any facilities, equipment, or materials.
- g. Description of general and special facilities available for performing the proposed work.
- h. Pertinent bibliography of the investigators or resumes of key personnel.

3. Supporting Information (not included in page total)

- a. List of other research projects currently being undertaken by the principal investigator.
- b. Extent of institution/company participation and support for the program.
- c. Names of other agencies receiving the proposal and/or currently supporting the effort.
- d. Indication of how the proposed effort might be coordinated with Navy and industrial counterparts.

Volume II Cost Proposal

The Cost Proposal shall consist of a cover page and two parts. Part 1 will provide a detailed cost breakdown of all costs by cost category by calendar or Gov't fiscal year and Part 2 will provide a cost breakdown by task/sub-task corresponding to the task numbers in the proposed Statement of Work. Options must be separately priced.

Cover Page: The use of the SF 1411 is optional. The words "Cost Proposal" should appear on the cover page in addition to the following information:

- BAA number
- Title of Proposal
- Identity of prime Offeror and complete list of subcontractors, if applicable
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address) and
- Duration of effort (separately identify basic effort and any proposed options)

Part 1: Detailed breakdown of all costs by cost category by calendar or Gov't fiscal year:

- Direct Labor – Individual labor category or person, with associated labor hours and unburdened direct labor rates

- Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. (Must show base amount and rate)
- Travel – Number of trips, destination, duration, etc.
- Subcontract – A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by the subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror's cost proposal or will be requested from the subcontractor at a later date
- Consultant – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate
- Materials should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief description of the Offeror's procurement method to be used (Competition, engineering estimate, market survey, etc.)
- Other Directs Costs, particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the contractor/recipient. (Justifications must be provided when Government funding for such items is sought). Include a brief description of the Offeror's procurement method to be used (Competition, engineering estimate, market survey, etc.)
- Fee/Profit including fee percentage.

Part 2 : Cost breakdown by task/sub-task using the same task numbers in the Statement of Work.

3. Significant Dates and Times-

Anticipated Schedule of Events *		
Event	Date (MM/DD/YEAR)	Time (EDT)
White Paper Due Date	02/01/05	2 P.M.
Notification of Initial Government Evaluations of White Papers	02/25/05	_____
Full Proposal Due Date	03/31/05	2 P.M.
Proposal Evaluations Complete	04/29/05	
Estimated Award Date	06/1/05-08/15/05	

***These dates are estimates as of the date of this announcement.**

4. Submission of Late Proposals –

Any proposal, modification, or revision, that is received at the designated Government office after the exact time specified for receipt of proposals is “late” and will not be considered unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and

- If it was transmitted through an electronic commerce method authorized by the announcement, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or

(c) It was the only proposal received.

However, a late modification of an otherwise timely and successful proposal, that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume.

The contracting officer must promptly notify any offeror if its proposal, modifications, or revision was received late and must inform the offeror whether its proposal will be considered.

5. Address for the Submission of White Papers and Full Proposals –

A. Address for the Submission of White Papers (electronic copy)

White papers should be submitted as a PDF file or Microsoft Word Document as an email attachment, with the BAA number and the topic area of the BAA in the subject line of the email, and sent to: armistj@onr.navy.mil

B. Address for the Submission of Full Proposals – (hard copy required, 1 original, 4 copies, 1 electronic copy on CD or ZIP disk in PDF File or Microsoft Work Document requested)

Full proposal packages should be mailed to:

Office of Naval Research
Ballston Center Tower One
Attn: Dr. J. Paul Armistead, ONR 331
Room 503-8
800 North Quincy Street
Arlington, VA 22217-5660

Telephone Number: 703-696-4315

NOTE: PROPOSALS SENT BY FAX OR E-MAIL WILL NOT BE CONSIDERED.

V. EVALUATION INFORMATION

1. Evaluation Criteria –

The following evaluation criteria apply to both the White Papers and the Full Proposals. Proposals will be selected through a technical/scientific/business decision process with technical and scientific considerations being most important. Criteria A-D are listed in descending order of priority. Any subcriteria listed under a particular criterion are of equal importance to each other.

- A. Overall scientific and technical merits of the proposal
 - 1. The degree of innovation
 - 2. The soundness of technical concept
 - 3. The Offeror's awareness of the state-of-the-art and understanding of the scope of the problem and the technical effort needed to address it
- B. Potential Navy/DoD/NASA relevance and contributions of the effort to the agency's specific mission
- C. Offeror's capabilities, related experience, and past performance, including the qualifications, capabilities and experience of the proposed principal investigator and personnel
 - 1. The quality of technical personnel proposed
 - 2. The Offeror's experience in relevant efforts with similar resources
 - 3. The ability to manage the proposed effort
- D. The realism of the proposed cost

For proposed awards to be made as contracts to large businesses, the socio-economic merits of each proposal will be evaluated based on the extent of the Offeror's commitment in providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, HUBZone small businesses, veteran-owned small businesses, service disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions.

Industry-Academia Partnering – ONR highly encourages partnering among industry and academia with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-academic partnering which enhances the development of novel S&T advances will be given favorable consideration.

Industry-Government Partnering – ONR highly encourages partnering among industry and Government with a view toward speeding the incorporation of new science and technology into fielded systems. Proposals that utilize industry-Government partnering which enhances the development of novel S&T advances will be given favorable consideration.

2. Evaluation Panel -

The evaluation of White Papers and Full Proposals will be performed by an Evaluation Team of government technical experts drawn from the Office of Naval Research, NASA, the naval systems commands, navy warfare centers, the Naval Research Laboratory (NRL), other naval and defense activities/agencies, and other Federal government entities.

VI. AWARD ADMINISTRATION INFORMATION

1. Administrative Requirements –

- The North American Industry Classification System (NAICS) code – The North American Industry Classification System (NAICS) code for this announcement is **541710** with a small business size standard of **500 employees**.
- CCR - Successful Offerors not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to award of any grant, contract, cooperative agreement, or other transaction agreement. Information on CCR registration is available at <http://www.onr.navy.mil/02/ccr.htm>.
- Certifications – Proposals should be accompanied by a completed certification package which can be accessed on the ONR Home Page at Contracts & Grants. For grant proposals and proposals for cooperative agreements or other transaction agreements (other than for prototypes), the certification package is entitled, "[Certifications for Grants and Agreements](#)." For contract proposals, the certification package is entitled, "[Representations and Certifications for Contracts](#)."
- Subcontracting Plans - Successful contract proposals that exceed \$500,000, submitted by all but small business concerns, will be required to submit a Small Business Subcontracting Plan in accordance with FAR 52.219-9, prior to award.

2. Reporting -

The following deliverables, primarily in contractor format, are anticipated as necessary. However, specific deliverables should be proposed by each Offeror and finalized with the contracting agent:

- Technical and Financial Progress Reports
- Presentation Material
- Other Documents or Reports
- Final Report

VII. OTHER INFORMATION

1. Project Meetings & Reviews

Program status reviews may also be held to provide a forum for reviews of the latest results from experiments and any other incremental progress towards the major demonstrations. These meetings will be held at various sites throughout the country. For costing purposes, Offerors should assume that 40% of these meetings will be at or near ONR, Arlington VA and 60% at other contractor or government facilities. Interim meetings are likely, but these will be accomplished via video telephone conferences, telephone conferences, or web-based collaboration tools.

2. Government Property/Government Furnished Equipment (GFE) and Facilities

Each proposer must provide a very specific description of any equipment/hardware that it needs to acquire to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award. Also, this description should identify the component, nomenclature, and configuration of the equipment/hardware that it proposes to purchase for this effort. It is the Government's desire to have the contractors purchase the equipment/hardware for deliverable items under their contract. The purchase on a direct reimbursement basis of special test equipment or other equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis. Maximum use of Government integration, test, and experiment facilities is encouraged in each of the Offeror's proposals.

Government research facilities and operational military units are available and should be considered as potential government furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for the basic and applied research. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should explain which of these facilities they recommend.

3. Use of Animals and Human Subjects in Research

If animals are to be utilized in the research effort proposed, the Offeror must complete a DoD Animal Use Protocol with supporting documentation (copies of AAALAC accreditation and /or NIH assurance, IACUC approval, research literature database searches, and the two most recent USDA inspection reports) prior to award. Similarly, for any proposal that involves the experimental use of human subjects, the Offeror must obtain approval from the Offeror's committee for protection of human subjects (normally referred to as an Institutional Review Board, (IRB)). The Offeror must also provide NIH (OHRP/DHHS) documentation of a Federal Wide Assurance that covers the proposed human subjects study. If the Offeror does not have a Federal Wide Assurance, a DoD Single Project Assurance for that work must be completed prior to award. Please see <http://www.onr.navy.mil/02/howto.htm> for further information.

4. Department of Defense High Performance Computing Program

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S & T and DT & E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts, grants, and assistance instruments may be eligible to

use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at <http://www.hpcmo.hpc.mil/>.